Copies of this manual may be obtained by contacting Rhineland Arms

Rhineland Arms, Inc
1301, W. FM 407, Suite 201
Lewisville, TX, 75077
WWW.RHINELANDARMS.COM
972-342-2105

04-05 Rev. 3

MANUAL
R22 RIMFIRE RIFLE

RHINELAND ARMS, INC.

This publication contains technical or operational information that is for government and civilian use. This instruction manual should always accompany the firearm and be transferred with it upon change of ownership. Read this manual, instructions and warnings before using the firearm.

—Firearms Safety—

Firearms safety depends on everyone, before using your rifle read this instruction book and its warnings. Never forget the rules below.

1. **Treat all firearms as loaded! It does not matter how well you know firearms or if you are cleaning them. Always treat them as if they were loaded.**
2. **Learn the mechanics and characteristics of the rifle you are using.**
3. **Always keep the muzzle pointed in a safe direction.**
4. **Wear shooting glasses and hearing protection when shooting**
5. **Be sure your barrel is clear of obstructions before shooting, this includes oils and mud.**
6. **Always know what your target is and where your bullets will stop.**
7. **Never store your rifle loaded.**
8. **Never transport your rifle loaded.**
9. **Never climb a tree or fence with a loaded firearm.**
10. **Do not shoot at water or hard surfaces.**
11. **Avoid alcohol before or while shooting.**

Table of Contents

State-by-State warnings..... Pages 2 – 4
General Information..... Page 5
Ammunition..... Page 5
Safety Lock..... Page 6
Safety System/Selector Lever. ..... Page 7
Loading the Magazines and Rifle..... Page 8
Unloading the Magazines and Rifle..... Page 9
Avoiding and Clearing Jams..... Page 9
Disassembly/Reassembly..... Page 10
Cleaning..... Page 11
Parts List..... Page 12
Repair Work..... Page 18
Returns ..... Page 18
Ordering Parts..... Page 18

WARNING!

WHEN YOU PULL THE TRIGGER, YOU MUST EXPECT THE RIFLE TO FIRE AND YOU MUST TAKE THE RESPONSIBILITY FOR FIRING IT. MAKE SURE OF YOUR TARGET TO AVOID ACCIDENTAL INJURY OR DEATH.

State-by-State Warnings

Some states require the manufacture to post warnings specific to that state. Rhineland Arms includes the current regulations as of the date of this manual.

California:

WARNING

"Children are attracted to and can operate firearms that can cause severe injuries or death. Prevent Child access by always keeping guns locked away and unloaded when not in use. If you keep a loaded firearm where a child obtains and improperly uses it, you may be fined or sent to prison."

ADVERTENCIA

"A los ninos atraen las armas de fuego y las pueden Hacer funcionar. Ellos pueden causarses lesions graves Y la muerte. Evite que los ninos tengan accesso a las armas de fuego guardandolas siempre con llave y descargadas cuando no las este utilizando. Si usted tiene un arma de fuego cargada en un luag en que un nino tiene acceso a ella y la USA indebidamente, le pueden dar una multa o enviarlo a la carcel."

Florida:

"IT IS UNLAWFUL, AND PUNISHABLE BY IMPRISONMENT AND FINE, FOR ANY ADULT TO STORE OR LEAVE A FIREARM IN ANY PLACE WITHIN THE REACH OR EASY ACCESS OF A MINOR UNDER 18 YEARS OF AGE OR TO KNOWINGLY SELL OR OTHERWISE TRANSFER OWNERSHIP OR POSSESSION OF A FIREARM TO A MINOR OR A PERSON OF UNSOUND MIND"

Maine:
"ENDANGERING THE WELFARE OF A CHILD IS A CRIME. IF YOU LEAVE A FIREARM AND AMMUNITION WITHIN EASY ACCESS OF A CHILD, YOU MAY BE SUBJECT TO FINE, IMPRISONMENT OR BOTH. KEEP FIREARMS AND AMMUNITION SEPARATE. KEEP FIREARMS AND AMMUNITION LOCKED UP. USE TRIGGER LOCKS"

Maryland:
"WARNING: CHILDREN CAN OPERATE FIREARMS WHICH MAY CAUSE DEATH OR SERIOUS INJURY. IT IS A CRIME TO STORE OR LEAVE A LOADED FIREARM IN ANY LOCATION WHERE AN INDIVIDUAL KNEW OR SHOULD HAVE KNOWN THAT AN UNSUPERVISED MINOR WOULD GAIN ACCESS TO THE FIREARM. STORE YOUR FIREARM RESPONSIBLY!"

Massachusetts:
"IT IS UNLAWFUL TO STORE OR KEEP A FIREARM, RIFLE, SHOTGUN OR MACHINEGUN IN ANY PLACE UNLESS THAT WEAPON IS EQUIPPED WITH A TAMPER-RESISTANT SAFETY DEVICE OR IS STORED OR KEPT IN A SECURELY LOCKED CONTAINER."

New Jersey:
"IT IS A CRIMINAL OFFENSE TO LEAVE A LOADED FIREARM WITHIN EASY ACCESS OF A MINOR"

New York City:
"THE USE OF A LOCKING DEVICE OR SAFETY LOCK IS ONLY ONE ASPECT OF RESPONSIBLE FIREARMS STORAGE. FIREARMS SHOULD BE STORED UNLOADED AND LOCKED IN A LOCATION THAT IS BOTH SEPARATE FROM THEIR AMMUNITION AND INACCESSIBLE TO CHILDREN AND OTHER UNAUTHORIZED PERSONS"

Connecticut:
"UNLAWFUL STORAGE OF A LOADED FIREARM MAY RESULT IN IMPRISONMENT OR FINE"

North Carolina:
"IT IS UNLAWFUL TO STORE OR LEAVE A FIRARM THAT CAN BE DISCHARGED IN A MANNER THAT A REASONABLE PERSON SHOULD KNOW IS ACCESSIBLE TO A MINOR"

Texas:
"IT IS UNLAWFUL TO STORE, TRANSPORT OR ABANDON AN UNSECURED FIREARM IN A PLACE WHERE CHILDREN ARE LIKELY TO BE AND CAN OBTAIN ACCESS TO THE FIREARM"

Wisconsin:
"IF YOU LEAVE A LOADED FIREARM WITHIN THE REACH OR EASY ACCESS OF A CHILD YOU MAY BE FINED OR IMPRISONED OR BOTH IF THE CHILD IMPROPERLY DISCHARGES, POSSESSES, OR EXHIBITS THE FIREARM"

WARNING: LEAD EXPOSURE
SHOOTING, HANDLING AND CLEANING FIREARMS AND AMMUNITION WILL EXPOSE YOU TO LEAD. ALWAYS WASH YOUR HANDS THOROUGHLY AFTER EXPOSURE.

READ ALL INSTRUCTIONS AND WARNINGS BEFORE USE!

RHINELAND ARMS MODEL R22 CARBINE - 22LR

General Information

The R22 Carbine is a semi-automatic rifle that is chambered for the .22LR cartridge. The rifle is recoil operated (BLOWBACK), this requires the pressure from a fired round to create enough pressure to blow the bolt rearward. Ammunition is fed from a magazine that can hold from 1 to 10 rounds.

The operation of the rifle begins with the user inserting a loaded magazine. Next the bolt is pulled rearward, this cocks the hammer and compresses the recoil spring. When the bolt handle is let go, it travels foreword and strips a round from the magazine and feeds it into the chamber of the barrel.

To fire a round the trigger is pulled, releasing the hammer. The hammer strikes the cartridge igniting it. The backpressure then begins the rearward cycle of the bolt, which cocks the hammer and loads a live round into the chamber. This will continue with each pull of the trigger until the magazine is empty.

WARNING: A MAGAZINE DOES NOT NEED TO BE INSTALLED FOR THE RIFLE TO FIRE.

REMEMBER; TREAT ALL GUNS AS ALWAYS LOADED!

Ammunition

The R22 carbine is only chambered for the .22LR ammunition. It will only work properly with standard or high velocity ammunition made to industry specifications.

Some bullets may not work well as they may be too blunt or have sharp edges that will not allow them to feed properly.

WARNING: DO NOT TRY TO LOAD .22 SHORT, .22 LONG, .22 SHOT OR .17M2 INTO THE R22 RIFLE.

THESE CAN DESTROY YOUR RIFLE AND CAUSE HARM TO BYSTANDERS AND YOU.

Safety Lock

INCORRECT **CORRECT**

The R22 is shipped with a safety lock. This safety lock is to be used as shown in the picture to the right.

Run the cable through the ejection port and bottom of the magazine well.

Rhineland Arms retains a master copy of your keys. Contact Rhineland Arms if you lose your key, we can replace it for a fee.

The R22 Safety System

Selector Lever in "S" position **Selector Lever in "F" position**

The R22 has a selector lever that is located on the lower left side of the rifle. The selector lever has two positions "S" for safe and "F" for fire. When it is set to the "F" position the rifle will fire a single shot with each pull of the trigger. When the selector lever is set to the "S" position it blocks the movement of the trigger, preventing the hammer from being released.

WARNING: NEVER DEPEND ON THE SELECTOR LEVER FOR PROTECTION FROM CARELESS HANDLING OF THE RIFLE.

Loading the Magazine and Rifle

WARNING: RIFLE MUST BE POINTED IN A SAFE DIRECTION

The magazines are loaded by inserting the rounds rear end first, one at a time. Be careful not to damage the bullet as this can affect function and accuracy.

Once the magazine has been loaded, make sure the Selector Lever is set to "S" and insert the magazine into the mag-well. The R22 rifle is designed to have the magazine pushed straight into the mag-well and the rifles mag-system will guide the lugs into the correct location to lock the magazine into place.

Once the magazine is correctly inserted into the rifle, simply pull the bolt handle all the way back and let go of it. This will load a round into the magazine. Do not assist the bolt handle forward, this will cause a jam.

The Rifle is now loaded. When the Selector Lever is changed to the "F" position the rifle will fire when the trigger is pulled.

The rifle will fire every time the trigger is pulled until there is no more ammunition. Remember to turn the Selector Lever to the "S" position as soon as the last round has been fired.

WARNING!

THE BOLT WILL NOT STAY OPEN AFTER THE LAST ROUND OR WHEN THE MAGAZINE IS EMPTY.

YOU MUST CHECK THE CHAMBER FREQUENTLY TO MAKE SURE IT IS NOT LOADED.

NEVER TEST CYCLE LIVE AMMO IN A UNSAFE LOCATION; RIMFIRE ROUNDS CAN DETONATE WHEN THE BOLT SLAMS FOREWARD.

Unloading the Magazine and Rifle

WARNING: MAKE SURE THE RIFLE IS POINTED IN A SAFE DIRECTION, THE SELECTOR LEVER IS IN THE "S" POSITION AND THERE ARE NO ROUNDS IN THE RIFLE.

To unload and/or remove the magazine, first turn the Selector Lever to the "S" position. Next remove the magazine by pushing the Magazine catch lever in with the thumb while at the same time grasping the magazine body and pulling it straight out.

WARNING: THE RIFLE CAN STILL FIRE IF THERE IS A ROUND IN THE CHAMBER.

Now pull the bolt handle all the way back and look in the chamber and at the bolt face to make sure there are no more cartridges in the rifle. Close the bolt.

Remove unspent cartridges from a magazine by pushing down and foreword with the thumb.

Avoiding and Clearing Jams

WARNING: MAKE SURE THE RIFLE IS POINTED IN A SAFE DIRECTION, THE SELECTOR LEVER IS IN THE "S" POSITION AND THERE ARE NO ROUNDS IN THE RIFLE.

If the rifle jams, first turn the Selector Lever to the "S" position and keep the rifle pointed in a safe direction. Remove the magazine and then pull the bolt handle back to inspect the type of jam. This should clear most jams. If not, you may need to remove the cartridge manually. Use a wood or non-metallic tool to extract the cartridge.

WARNING: NEVER USE A SCREWDRIVER OR KNIFE TO REMOVE RIMFIRE AMMUNITION AS THIS CAN ACT AS A FIRING PIN.

If the rifle continues to jam then try another type of ammunition, this can and does affect the function.

Some magazines will also work better than others. If you are having problems try another manufacturer. Also, most magazines are made from plastic and will wear after use, potentially causing malfunctions. If the rifle will not work correctly or repeatedly jams, return it with the magazine being used to Rhineland Arms for repair.

Disassembly/Reassembly

WARNING, MAKE SURE THE RIFLE IS POINTED IN A SAFE DIRECTION AND THERE ARE NO ROUNDS IN THE RIFLE.

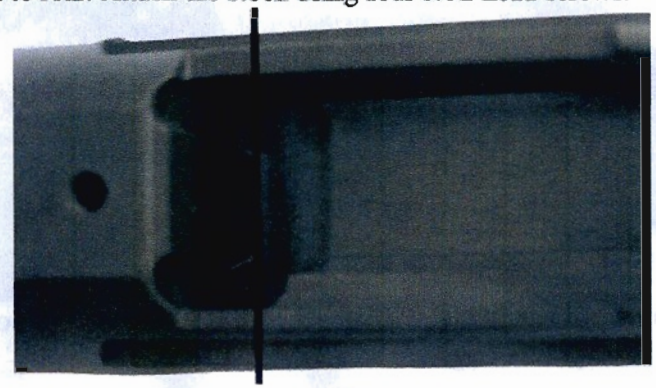
The R22 is held together with 5/32 Hex head screws and has several major groups. To access the inside of the trigger housing and receiver, first remove the stock by using a 5/32 hex wrench on the four screws in the forward section of the stock. Next, using a 5/32 hex wrench, remove the two-5/32 hex head screws that hold the trigger housing and mag well in place. This opens up the trigger housing and gives access to the inside of the receiver. To remove the bolt, first pull the buffer in the rear out. Now pull the bolt handle all the way back then reach in and pull the front of the bolt out. Installation will be just the opposite.

The removal of the trigger components should be left to a professional gunsmith. They can be difficult to reassemble without damage to the housing.

To remove the Hand Guard/Scope Rail system, remove the four 5/32 hex head screws that hold it to the receiver, again using a 5/32 hex wrench. The Hand Guard/Scope Rail system should now slide off the front of the rifle. This gives access to the barrel.

The barrel is locked into the receiver with a lock nut. To remove the barrel, loosen the lock nut with a spanner wrench (page 17) turning in the direction shown (page 17), but do not try to remove it. Then unscrew the barrel from the receiver with hand pressure in a counter-clockwise direction.

Assemble the rifle in the reverse order. To re-install the barrel, screw it into the receiver by hand until the face of the barrel is just past the marker on the inside of the receiver. See below. Then tighten the lock nut using the spanner wrench. In order to maintain alignment when re-installing the Hand Guard/Scope Rail System, you MUST tighten the four 5/32 hex head screws from front to rear. Attach the stock using four 5/32 head screws.



Cleaning the R22 Rifle

The rifle has a protective finish on the metal parts; most solvents and cleaners can be used on those parts. Do not use acidic cleaners. Do not use abrasive material.

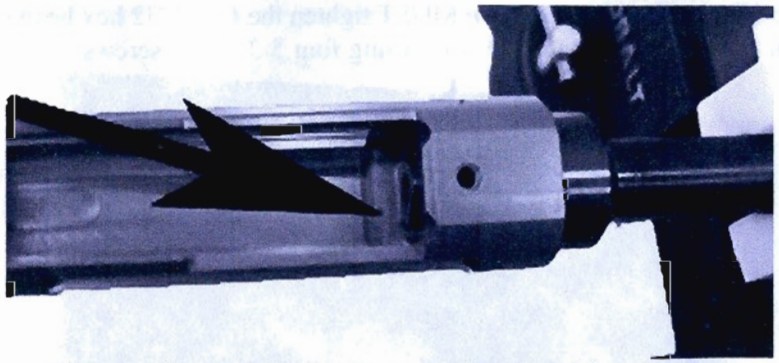
Care must be taken to make sure solvents to not come in contact with the stock, as it will melt the material or cause damage.

Cleaning the barrel: Use a good solvent such as Hoppes #9 and a nylon brush to clean the barrel. Make sure there is no more copper or lead by checking the color of the cloth patches after each pass of the barrel. For best accuracy, keep the muzzle clean and free of scratches and dents.

The Trigger components should only require infrequent cleaning. To clean these parts remove them from the housing and scrub each part clean. Take great care in making sure the springs are installed correctly.

The receiver will need the most cleaning. Use a solvent on the inside area, such as Hoppes #9. Make sure that the powder trap is cleaned. This keeps the powder from traveling further into the breach.

NOTE
DO NOT OIL THE BOLT OR THE INSIDE SECTIONS OF THE RECEIVER. THIS WILL ACCELERATE FOULING AND LEAD TO MALFUNCTIONS



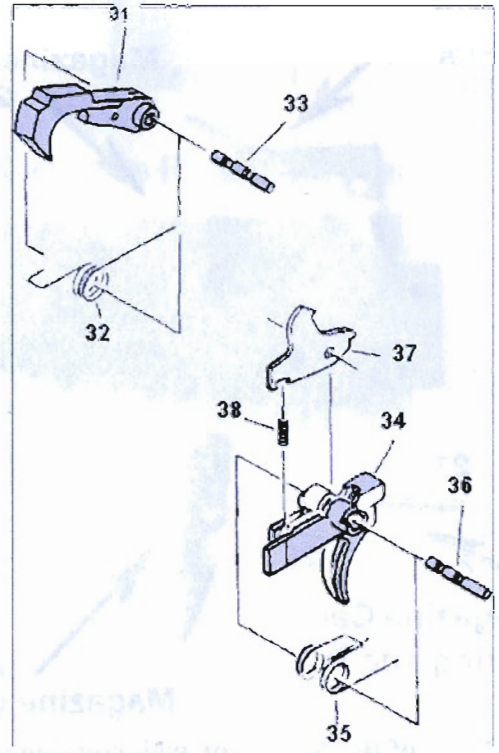
View of the powder trap area that must be cleaned.

Parts List

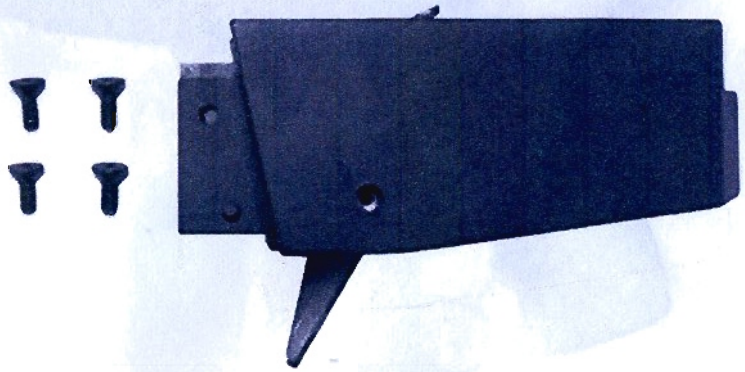
2	Barrel
3	Barrel nut
5	Receiver –FFL item
6	Bolt complete
7	Bolt
8	Firing pin
9	Firing pin spring
10	Firing pin, pin
11	Extractor
12	Extractor sprint
13	Extractor pin
14	Recoil Spring Complete
15	Recoil Spring
16	Recoil Rod
17	Cocking Handle
18	Recoil Spring screw
19	Buffer
20	(Intentionally left blank)
21	Hand guard
22	Hand guard screws (4)
23	Mag well
24	Mag well screws (4)
25	Mag catch
26	Mag catch spring
27	Mag catch pin
28	Ejector
29	Trigger housing
30	Hammer, Trigger Sear set complete
31	Hammer
32	Hammer spring
33	Hammer pin
34	Trigger
35	Trigger spring
36	Trigger pin
37	Dis-connector
38	Dis-connector spring
39	Selector
40	Selector spring
41	Selector pin
42	Pistol grip
43	Pistol grip screw
44	Stock
45	Stock screws
46	Magazines

R22 Main Components

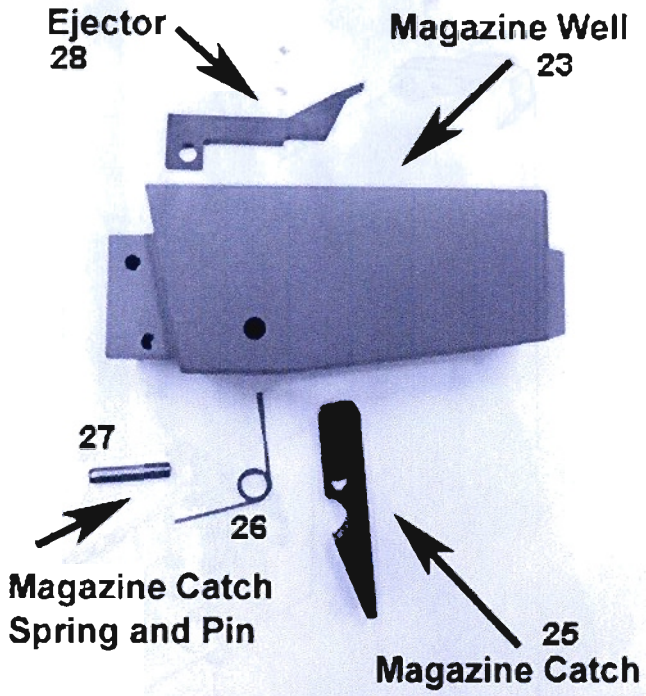
Complete lower section



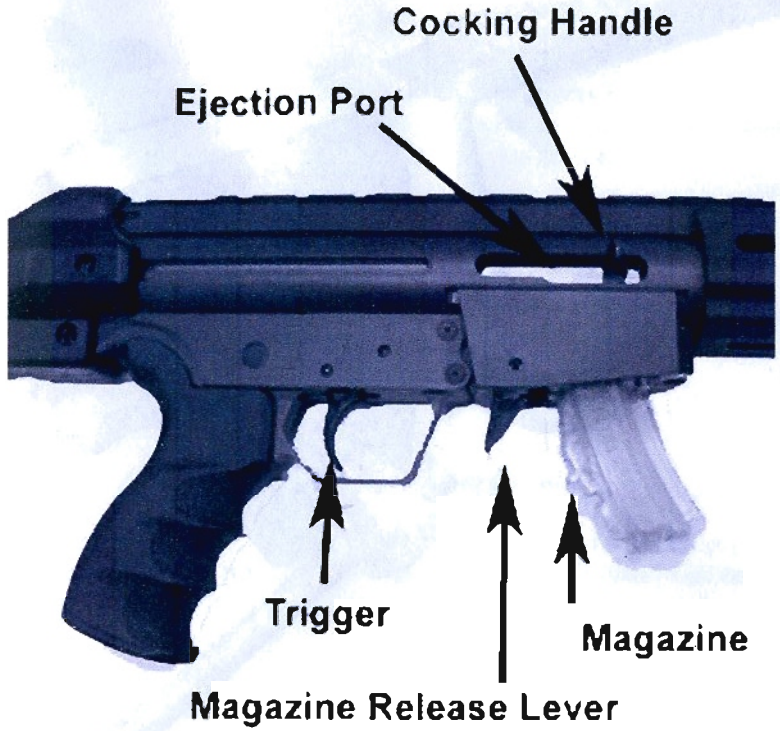
Trigger Assembly

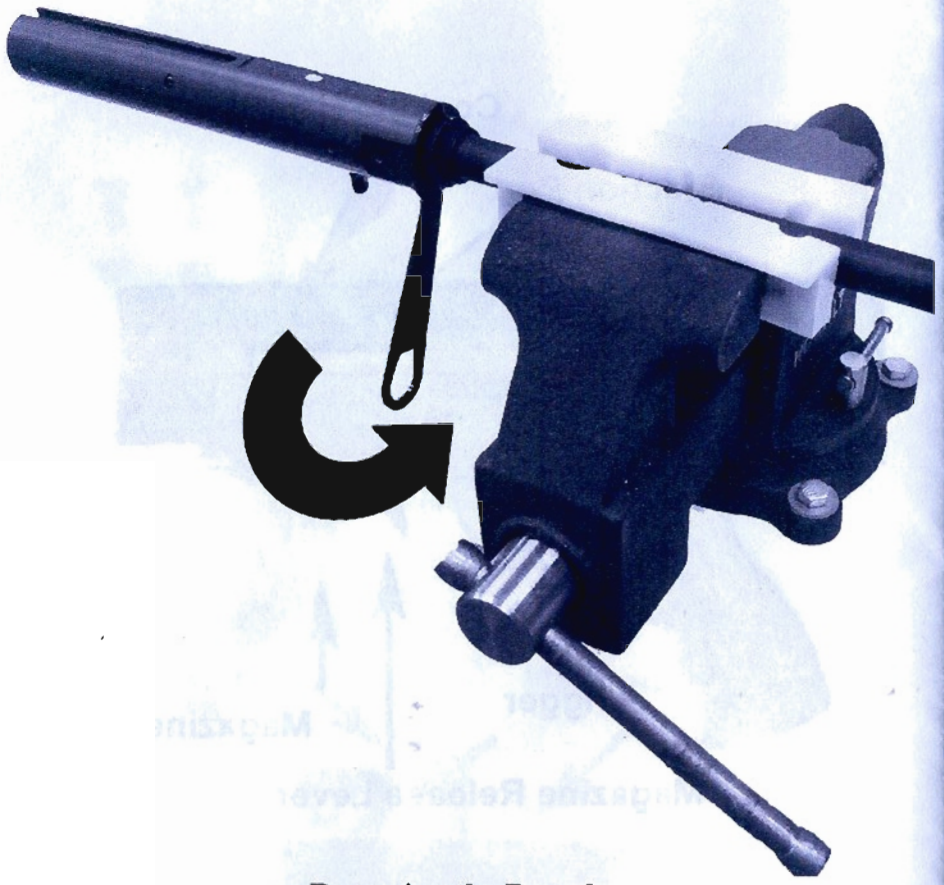


View of the assembled Magazine well



View of the Magazine well components





Removing the Barrel

Spanner wrench

Tools required, not included

Repair work

The owner can send the R22 Rifle directly to the factory for repair and we can send it directly back to the owner. If the rifle is sent back to Rhineland Arms through a dealer it will be shipped back to the dealer, no exceptions.

Returns

When sending the rifle back to Rhineland Arms, make sure of the following:

- There is no ammunition with the rifle.
- That the rifle is unloaded.
- You have a tracking number.

Ordering parts

Please contact Rhineland Arms for the current pricing of the parts you would like to purchase. Receivers can only be shipped directly to a Federal Firearms Licensed dealer.

Rhineland Arms
1301 W. FM 407, Suite 201
Lewisville, TX 75077

WWW.RHINELANDARMS.COM

Phone 972-342-2105